

CLAIMS

1. A data recording apparatus comprising:
 - data transmitting and receiving means for transmitting and receiving the data to and from the outside;
 - a buffer capable of storing said data temporarily;
 - buffer controlling means for controlling the input and output of said data to and from said buffer;
 - a disk drive capable of recording said data;
 - data recording and reproducing means for recording and reproducing said data into and from said disk drive;
 - data recording determining means for determining whether said data stored in said buffer is to be recorded or not in said disk drive and generating the recording-or-not information;
 - record data managing means for managing the recording-or-not information for said data stored in said buffer; and
 - data recording controlling means for controlling said buffer controlling means and said data recording and reproducing means so as to perform the recording control of said data in the buffer into said disk drive; wherein
 - said data transmitting and receiving means

sequentially transfers said data received from the outside into said buffer controlling means, and said buffer controlling means stores said transferred data into said buffer and notifies the completion of receiving a data block to said data recording determining means at each time when said data block in a predetermined unit is stored in said buffer.

2. A data recording apparatus in accordance with claim 1, wherein said data recording determining means reads the particular information capable of identifying from the other data blocks, from a data block stored in said buffer, determines whether the received data block is the same as a data block received previously or not on the basis of the read particular information, and notifies the recording-or-not information whether said received data block is to be recorded or not in said disk drive to said record data managing means on the basis of the result of the determination, further wherein

said record data managing means stores said recording-or-not information correspondingly to said data block stored in said buffer, and wherein

said data recording controlling means retrieves the recording-or-not information corresponding to said data block stored in said buffer, and performs transfer control on said data recording and reproducing means on

the basis of the retrieved recording-or-not information.

3. A data recording apparatus in accordance with claim 2, wherein said data recording controlling means issues a transfer starting request for said data block to said buffer controlling means and said data recording and reproducing means when the retrieved recording-or-not information is recording-permitted, and retrieves the recording-or-not information of the next data block thereby to perform transfer control when it is recording-inhibited.

4. A data recording apparatus in accordance with claim 1, wherein said data recording determining means reads out, from the data block stored in said buffer, the particular information indicating whether the data block is to be recorded in the disk drive, determines the validity/invalidity of the data block on the basis of the read particular information, and notifies the result of the determination as the data recording-or-not information to said record data managing means, further wherein

said record data managing means stores said recording-or-not information correspondingly to said data block stored in said buffer, and wherein

said data recording controlling means retrieves

the recording-or-not information corresponding to said data block stored in said buffer, and performs transfer control on said data recording and reproducing means on the basis of the retrieved recording-or-not information.

5. A data recording apparatus in accordance with claim 4, wherein said data recording controlling means issues a transfer starting request for said data block to said buffer controlling means and said data recording and reproducing means when the retrieved recording-or-not information is recording-permitted, and retrieves the recording-or-not information of the next data block thereby to perform transfer control when it is recording-inhibited.

6. A data recording apparatus in accordance with claim 1, wherein said data recording determining means reads out, from said data block stored in said buffer, the particular information capable of identifying whether the data format of said data block is normal or abnormal, determines the normalness /abnormalness of the data block on the basis of the read particular information, and notifies the result of the determination as the data recording-or-not information to said record data managing means, further wherein

said record data managing means stores said

recording-or-not information correspondingly to said data block stored in said buffer, and wherein

said data recording controlling means retrieves the recording-or-not information corresponding to said data block stored in said buffer, and performs transfer control on said data recording and reproducing means on the basis of the retrieved recording-or-not information.

7. A data recording apparatus in accordance with claim 6, wherein said data recording controlling means issues a transfer starting request for said data block to said buffer controlling means and said data recording and reproducing means when the retrieved recording-or-not information is recording-permitted, and retrieves the recording-or-not information of the next data block thereby to perform transfer control when it is recording-inhibited.

8. A data recording apparatus in accordance with claim 2, 4, or 6, wherein said data recording determining means determines the recording-or-not for all the data blocks every a frame data when receiving a data recording determination starting request from the outside, and determines that all the data blocks are recording-permitted when not receiving a data recording determination starting request from the outside.

9. A data recording method comprising the steps of:

transmitting and receiving the data to and from the outside by data transmitting and receiving means;

storing said data temporarily by a buffer;

controlling the input and output of said data to and from said buffer by buffer controlling means;

recording said data by a disk drive;

recording and reproducing said data into and from said disk drive by data recording and reproducing means;

determining whether said data stored in said buffer is to be recorded or not in said disk drive and generating the recording-or-not information by data recording determining means;

managing the recording-or-not information for said data stored in said buffer by record data managing means;

controlling said buffer controlling means and said data recording and reproducing means so as to perform the recording control of said data in the buffer into said disk drive by data recording controlling means;

sequentially transferring said data received from the outside into said buffer controlling means by said data transmitting and receiving means;

storing said transferred data into said buffer by said buffer controlling means; and

notifying the completion of receiving a data block to said data recording determining means at each time when said data block in a predetermined unit is stored in said buffer.

10. A data recording method in accordance with claim 9, wherein said data recording determining means reads the particular information capable of identifying from the other data blocks, from a data block stored in said buffer, determines whether the received data block is the same as a data block received previously or not on the basis of the read particular information, and notifies the recording-or-not information whether said received data block is to be recorded or not in said disk drive to said record data managing means on the basis of the result of the determination, further wherein

said record data managing means stores said recording-or-not information correspondingly to said data block stored in said buffer, and wherein

said data recording controlling means retrieves the recording-or-not information corresponding to said data block stored in said buffer, and performs transfer control on said data recording and reproducing means on the basis of the retrieved recording-or-not information.

11. A data recording method in accordance with claim 10, wherein said data recording controlling means issues a transfer starting request for said data block to said buffer controlling means and said data recording and reproducing means when the retrieved recording-or-not information is recording-permitted, and retrieves the recording-or-not information of the next data block thereby to perform transfer control when it is recording-inhibited.

12. A data recording method in accordance with claim 9, wherein said data recording determining means reads out, from the data block stored in said buffer, the particular information indicating whether the data block is to be recorded in the disk drive, determines the validity/invalidity of the data block on the basis of the read particular information, and notifies the result of the determination as the data recording-or-not information to said record data managing means, further wherein

said record data managing means stores said recording-or-not information correspondingly to said data block stored in said buffer, and wherein

said data recording controlling means retrieves the recording-or-not information corresponding to said

data block stored in said buffer, and performs transfer control on said data recording and reproducing means on the basis of the retrieved recording-or-not information.

13. A data recording method in accordance with claim 12, wherein said data recording controlling means issues a transfer starting request for said data block to said buffer controlling means and said data recording and reproducing means when the retrieved recording-or-not information is recording-permitted, and retrieves the recording-or-not information of the next data block thereby to perform transfer control when it is recording-inhibited.

14. A data recording method in accordance with claim 9, wherein said data recording determining means reads out, from said data block stored in said buffer, the particular information capable of identifying whether the data format of said data block is normal or abnormal, determines the normalness /abnormalness of the data block on the basis of the read particular information, and notifies the result of the determination as the data recording-or-not information to said record data managing means, further wherein

said record data managing means stores said recording-or-not information correspondingly to said

data block stored in said buffer, and wherein

said data recording controlling means retrieves the recording-or-not information corresponding to said data block stored in said buffer, and performs transfer control on said data recording and reproducing means on the basis of the retrieved recording-or-not information.

15. data recording method in accordance with claim 14, wherein said data recording controlling means issues a transfer starting request for said data block to said buffer controlling means and said data recording and reproducing means when the retrieved recording-or-not information is recording-permitted, and retrieves the recording-or-not information of the next data block thereby to perform transfer control when it is recording-inhibited.